

REMARKS

Applicants' attorney thanks the Examiner for her comments. Claim 1 has been amended to indicate that the plurality of apertures are formed after extrusion of the second layer onto the first layer. This language is supported in the specification, page 17, line 21 through page 18, line 12, and is inherent in the claimed process. For instance, it is not practical to form apertures in a film prior to extrusion of the film. Thus, the added language merely clarifies Claim 1, and does not narrow the claim.

Claim 1 has also been amended to indicate differential shrinkage of the second layer relative to the first layer. This language is supported in the specification, page 15, lines 9-11. This means that the second layer shrinks more than the first layer (i.e., the first layer shrinks to a lesser extent, or not at all). Dependent Claim 5 has been amended for consistency with Claim 1.

Claims 23-41, which have been withdrawn from consideration, are hereby canceled.

Applicants believe that the amendments to Claim 1 are properly submitted after final rejection, and request entry at this stage. For instance, the added claim language should not require additional searching and consideration because a) the "after extrusion" language is inherent in the previously claimed method, and b) the previous search was plainly broad enough to cover shrinkage of either layer relative to the other.

a) Claim Rejections Based On 35 U.S.C. §103(a)

The Examiner rejected Claims 1, 5-6, 11, 16-17, 19-20 and 42-43 under 35 U.S.C. §103(a) as obvious over U.S. Patent 5,674,211 (Ek Dahl) in view of

DE 195 23 497 (Schwinn et al.) and GB 2 284 786 (Zelazoski et al.). This rejection is respectfully traversed.

Ekdahl discloses a laminate including a plastic film and a nonwoven web. The laminate is placed against a perforated support device with the nonwoven web facing the device. The film is heated, and a pressure differential is generated, causing aperturing of the film. The formation of film apertures after the layers are combined makes it possible to extrude (e.g., extrusion coat) the film layer onto the nonwoven web (Col. 1, lines 43-63).

However, Ekdahl does not disclose or suggest shrinkage of either layer and, in particular, does not disclose or suggest differential shrinkage of a second (i.e., film) layer relative to a first (i.e., nonwoven) layer. To the contrary, the process used to aperture the film requires localized expansion of one or both layers. As explained with respect to Figs. 1-3, the apertures are formed by placing the laminate over a perforated roller, applying a pressure differential (e.g., vacuum) sufficient to pull (expand) the layers partially into the apertures, and heating the film so that apertures form during the expansion (Col. 2, line 41 – Col. 3, line 26). The overall surface areas of the film and nonwoven web do not decrease, as would result from shrinkage of either layer. Instead, the surface area of the nonwoven web increases, and the surface area of the film stays the same or increases, during the aperturing process (See Figs. 2 and 3).

Schwinn et al. discloses a process which applies a nonwoven web to a surface of an already-formed polymer film. The film is not extruded onto the nonwoven web. A printing roll with spikes is used to bond the web and film together. However, as illustrated in Figs. 3(a) – 3(d), the bonding roller is applied to the nonwoven web layer so as to deform the web without aperturing the film. This is contrary to Applicants' Claim 1 which requires a) extrusion of the film onto the

nonwoven web, and b) aperturing the film after the extrusion. This is also contrary to the primary reference, Ekdahl, which requires aperturing of the film.

Furthermore, to combine the teachings of Schwinn et al. with Ekdahl would defeat a significant objective of Ekdahl. Ekdahl accomplishes the lamination using a technique which does not melt or otherwise damage the nonwoven material (Col. 3, lines 35-50). Schwinn et al., by contrast, requires considerable distortion of the nonwoven material in order to achieve bonding (Figs. 3a-3d). Prior art references cannot properly be combined where the objectives of one reference would be defeated by the other. Nothing in either reference would motivate persons skilled in the art to combine these two references together.

Zelazoski et al. discloses a film/nonwoven laminate in which the film is completely formed, and apertures (slits) are formed in the film, before the film and nonwoven web are joined together. This is contrary to the disclosure of Ekdahl, whose objective is to perforate the film after the layers are combined, in order to permit extrusion coating of the film onto the nonwoven web (Col. 1, lines 43-63). Accordingly, the references cannot be combined. The teaching of Zelazoski et al. is also contrary to Applicants' Claim 1, which requires a) extruding the film layer onto the nonwoven layer, and b) aperturing the film layer after the extrusion.

For these reasons, Claims 1, 5-6, 11, 16-17, 19-20 and 42-43 are patentable over the combination of Ekdahl, Schwinn et al. and Zelazoski et al.

The Examiner rejected Claim 4 under 35 U.S.C. §103(a) as obvious over the combination of Ekdahl, Schwinn et al., Zelazoski et al. and U.S. Patent 3,331,728 (Lane). This rejection is respectfully traversed. Claim 4 depends from Claim 1, and is patentable for at least the same reasons. The disclosure of Lane is somewhat cumulative of Ekdahl, involving a suction plate to form apertures in a

laminate. There is no disclosure of shrinkable layers, or differential shrinkage of a film relative to a nonwoven web.

The Examiner rejected Claims 1-2, 4-6, 11-17, 19-20 and 42-43 under 35 U.S.C. §103(a) as obvious over U.S. Patent 3,622,434 (Newman) in view of U.S. Patent 5,422,172 (Wu) and Ekdahl. This rejection is respectfully traversed.

Newman discloses a film/nonwoven laminate in which the film may be apertured (Col. 4, lines 17-23). However, the film is not extruded onto the nonwoven web as required by Applicants' Claim 1. Furthermore, the disclosed nonwoven web shrinks relative to the film, instead of the other way around (See Abstract). Claim 1 requires differential shrinkage of the second (film) layer relative to the first (nonwoven) layer.

Wu discloses a film/nonwoven laminate in which the film layer is elastic (Abstract). The fibrous nonwoven web is preferably extruded onto the elastic film, instead of the other way around, as required by Claim 1 (Col. 2, lines 34-50). Also, there is no disclosure of apertures formed in a film after extrusion of the film onto a nonwoven web. Furthermore, the reference does not disclose a heat shrinkable film layer, or a film layer having a shrinkage extent. Because the film layer is elastic, there is no motivation to heat shrink the film layer relative to the other layer. Any retraction of the laminate is caused by elastic recovery of the film (Col. 2, lines 55-59).

As explained above, Ekdahl discloses a laminate formed by extrusion coating a film onto a nonwoven web and subsequently aperturing the film. The reference does not disclose film and nonwoven layers having different shrinkage extents, and does not disclose differentially shrinking a film layer relative to a nonwoven layer. None of the three references disclose these limitations.

For these reasons, Claims 1-2, 4-6, 11-17, 19-20 and 42-43 are patentable over the combination of Newman, Wu and Ekdahl.

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Applicants believe that the claims, as now presented, are in condition for allowance. Reconsideration and withdrawal of the claim rejections are respectfully requested.

Respectfully submitted,

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